

## REMARKS

By this amendment, Applicants have amended claims 5, 12, 15, and 19, canceled claims 13 and 17, without prejudice, and added claims 23-24. As a result, claims 1-12, 14-16, and 18-24 are pending in this application. These amendments are being made to facilitate early allowance of the presently claimed subject matter. Applicants do not acquiesce in the correctness of the objections and rejections and reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, the Office rejects claims 1-22 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,799,181 (Vishnubhotla). In order to present a *prima facie* rejection under 35 U.S.C. § 102(e), the Office must show that Vishnubhotla discloses each and every feature of the claimed invention. Since the Office fails to present such a *prima facie* case, Applicants respectfully request withdrawal of the rejections.

### CLAIM 1

With respect to claim 1, the Office fails to show, *inter alia*, the claimed automatically selecting a set of algorithms based on objectives for a data mining model. In support of the rejection, the Office cites Vishnubhotla, col. 4, lines 13-15, and states “wherein selects data mining [sic] algorithms useful for solving the identified problems”. Office Action, p. 4. However, Applicants note that the entire sentence cited by the Office reads “the analytic application developer then selects data mining algorithms useful for solving the identified problems and defines data schema useful as inputs to the selected mining algorithms.” Vishnubhotla, col. 4, lines 12-15. As clearly stated by the sentence cited by the Office, the

selection of data mining algorithms is not performed automatically. Rather, the selection is manually performed by an analytic application developer. In sharp contrast, the claimed invention provides a computerized method of generating a data mining model in which a set of algorithms is automatically selected based on objectives for the data mining model.

With further respect to claim 1, the Office fails to show, *inter alia*, the claimed creating a plurality of datasets from sample data. In support of the rejection, the Office cites col. 10, lines 13-17 of Vishnubhotla and states “wherein create data schema or record structures”. Office Action, p. 4. As best understood by Applicants, the Office apparently alleges that data schema or record structures are the same as the claimed plurality of datasets. However, Applicants note that as is well understood in the art, a data schema or record structure merely defines a structure for storing data. In sharp contrast, each of the claimed datasets includes data from the sample data. Additionally, while Vishnubhotla discusses the use of a subset of historical data, see, e.g., Vishnubhotla, col. 11, line 58-col. 12, line 12, it fails to disclose the claimed creating a plurality of datasets from sample data.

With further respect to claim 1, the Office fails to show, *inter alia*, the claimed optimizing the set of algorithms using the plurality of datasets. In support of the rejection, the Office cites Fig. 3 and col. 14, lines 61-63 of Vishnubhotla and states “wherein the input data parameters include input data, i.e. diagram 306 and optimize mining [sic] run for, i.e. diagram 308”. As best understood by Applicants, the Office apparently alleges that a data mining model definition that includes both “input data” and “optimize mining run for” parameters discloses the claimed optimizing the set of algorithms using the plurality of datasets. However, Applicants note that Vishnubhotla fails to disclose the use of a plurality of datasets in performing any sort of

optimization. Rather, the “input data” parameter merely “indicat[es] the data file from which historical data is to be read for training the model.” Vishnubhotla, col. 14, lines 63-66.

In light of each of the above-stated reasons, either alone or in combination, Applicants respectfully request withdrawal of the rejection of claim 1 and claims 2-11, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

## **CLAIM 2**

With further respect to claim 2, the Office fails to show that Vishnubhotla discloses any of the claimed processes. For example, the Office alleges that col. 20, lines 65-67 of Vishnubhotla disclose the claimed shuffling the sample data. However, Applicants note that this portion of Vishnubhotla discusses adjusting data mining model parameters. These parameters are entirely distinct from any type of sample data. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office further clarify how adjusting parameters of a data mining model discloses shuffling sample data.

Similarly, the Office cites Fig. 4 of Vishnubhotla as allegedly disclosing the claimed placing the shuffled sample data into a plurality of partitions; and including each partition in one of the plurality of datasets. However, Fig. 4 merely shows an example of historical data. Additionally, the discussion from Vishnubhotla, col. 18, line 7-col. 20, line 36 does not discuss a plurality of partitions or including each such partition in one of a plurality of datasets. As a result, this portion of Vishnubhotla appears to be entirely unrelated to the claimed processes. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office further clarify how Fig. 4 discloses placing the shuffled sample data into a

plurality of partitions; and including each partition in one of the plurality of datasets as in the claimed invention.

In light of each of the above-stated reasons, either alone or in combination, Applicants again respectfully request withdrawal of the rejection of claim 2 and claims 3-4, which depend therefrom, as allegedly being anticipated by Vishnubhotla.

#### **CLAIM 5**

With further respect to claim 5, the Office fails to show that Vishnubhotla discloses that automatically selecting a set of algorithms includes obtaining a rule that comprises a best practice for an objective as in the claimed invention. In support of the rejection, the Office cites Vishnubhotla, col. 13, lines 46-48 and states “wherein the radial basis function algorithm is a data mining algorithm practically designed for value prediction as such as opposed to data classification or pattern matching”. Office Action, p. 6. However, Applicants note that the cited portion of Vishnubhotla and Vishnubhotla in general, is silent with respect to a rule that comprises a best practice for an objective, let alone obtaining such a rule as in the claimed invention. As a result, Applicants again respectfully request withdrawal of the rejection of claim 5 and claim 6, which depends therefrom, as allegedly being anticipated by Vishnubhotla. However, should the Office maintain its interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla discloses the claimed rule.

#### **CLAIM 12**

With respect to claim 12, the Office fails to show, *inter alia*, that Vishnubhotla discloses applying the set of algorithms to the plurality of datasets as in the claimed invention. In support of the rejection, the Office cites Vishnubhotla, col. 3, lines 37-39. However, this portion of

Vishnubhotla is unrelated to applying a set of algorithms to a plurality of datasets. In sharp contrast, this portion of Vishnubhotla discusses production scoring, in which a trained data mining algorithm is executed in a production scoring mode. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed applying the set of algorithms to the plurality of datasets.

Additionally, Applicants have amended claim 12 with a feature originally presented in claim 13. To this extent, with respect to newly presented claim 12, the Office fails to show, *inter alia*, that Vishnubhotla discloses automatically generating a plurality of datasets from sample data as in the claimed invention. In support of the rejection of claim 13, the Office cites the Abstract of Vishnubhotla and states “wherein automated data mining using domain-specific analytic applications for solving predefined problems”. Office Action, p. 10. Applicants note that this portion of Vishnubhotla is entirely unrelated to generating a plurality of datasets from sample data. While Vishnubhotla does discuss the use of test samples of historical data (see, e.g., Vishnubhotla, col. 20, line 60-col. 21, line 4), Vishnubhotla states that these test samples are “developed for use by the analytic application developer” (col. 21, line 1), not automatically generated as in the claimed invention. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed automatically generating a plurality of datasets from sample data as in the claimed invention.

In light of each of the above-stated reasons, either alone or in combination, Applicants respectfully request withdrawal of the rejection of claim 12 and claims 14 and 23, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

#### **CLAIM 15**

Applicants initially note that the Office's rejection cites "Vishnubhotla in view of Campos". Office Action, p. 11. However, the rejection appears to allege that the claimed invention is anticipated by Vishnubhotla under 35 U.S.C. § 102(e). As a result, Applicants' response is filed based on this assumption. Applicants respectfully request clarification by the Office if this is not the case.

Applicants have amended claim 15 with a feature originally presented in claim 17. To this extent, with respect to newly presented claim 15, the Office fails to show, *inter alia*, that Vishnubhotla discloses a dataset system for automatically generating a plurality of datasets from sample data as in the claimed invention. In support of the rejection of claim 17, the Office cites the Abstract of Vishnubhotla. As discussed above with respect to claim 12, Applicants note that this portion of Vishnubhotla is entirely unrelated to generating a plurality of datasets from sample data. While Vishnubhotla does discuss the use of test samples of historical data (see, e.g., Vishnubhotla, col. 20, line 60-col. 21, line 4), Vishnubhotla states that these test samples are "developed for use by the analytic application developer" (col. 21, line 1), not automatically generated as in the claimed invention. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed automatically generating a plurality of datasets from sample data as in the claimed invention.

As a result, Applicants respectfully request withdrawal of the rejection of claim 15 and claims 16, 18, and 24, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

#### **CLAIM 19**

With respect to claim 19, the Office fails to show, *inter alia*, that Vishnubhotla discloses program code for automatically generating a plurality of datasets from sample data as in the claimed invention. In support of the rejection, the Office cites several places of Vishnubhotla that reference software. However, Applicants note that each of these references is entirely unrelated to generating a plurality of datasets from sample data. In particular, in Vishnubhotla, col. 17, lines 65-67 discuss a scheduler; col. 18, lines 20-25 discuss the use of software to populate an input data schema; col. 21, lines 43-48 discuss access to data mining functions; col. 17, lines 59-60 discuss populating data schema with sample historical data; col. 22., lines 6-9 discuss the data mining model definition. None of these citations discuss anything with respect to multiple datasets being generated from sample data. In fact, as discussed above, Vishnubhotla discusses the use of test samples of historical data (see, e.g., Vishnubhotla, col. 20, line 60-col. 21, line 4), but expressly states that these test samples are “developed for use by the analytic application developer” (col. 21, line 1), not with program code as in the claimed invention.

With further respect to claim 19, the Office fails to show, *inter alia*, that Vishnubhotla discloses program code for automatically selecting a set of algorithms based on objectives for the data mining model. In support of the rejection, the Office cites col. 4, lines 13-15 and states “wherein selects data minding [sic] algorithms useful for solving the identified problems”. Office Action, p. 13. However, as discussed above with respect to claim 1, Applicants note that the entire sentence cited by the Office reads “**the analytic application developer** then selects

data mining algorithms useful for solving the identified problems and defines data schema useful as inputs to the selected mining algorithms.” Vishnubhotla, col. 4, lines 12-15. As clearly stated by the sentence cited by the Office, the selection of data mining algorithms is not performed automatically by program code. Rather, the selection is manually performed by an analytic application developer. In sharp contrast, the claimed invention provides program code for automatically selecting a set of algorithms based on objectives for the data mining model.

In light of each of the above-stated reasons, either alone or in combination, Applicants respectfully request withdrawal of the rejection of claim 19 and claims 20-22, which depend therefrom, as allegedly being disclosed by Vishnubhotla.



## **CONCLUSION**

Applicants submit that each of the pending claims is patentable for one or more additional unique features. To this extent, Applicants do not acquiesce to the Office's interpretation of the claimed subject matter or the references used in rejecting the claimed subject matter. These features have not been separately addressed herein for brevity. However, Applicants reserve the right to present such arguments in a later response should one be necessary.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

/John LaBatt/

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